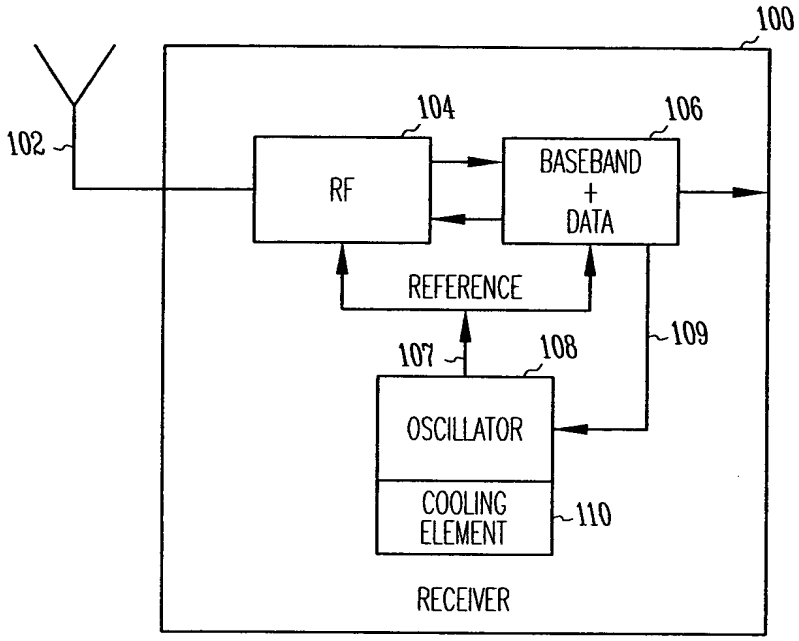
100
102
104
106
RF
BASEBAND
+
DATA
REFERENCE
107
108
109
OSCILLATOR
COOLING
ELEMENT
110
RECEIVER

Fig. 1

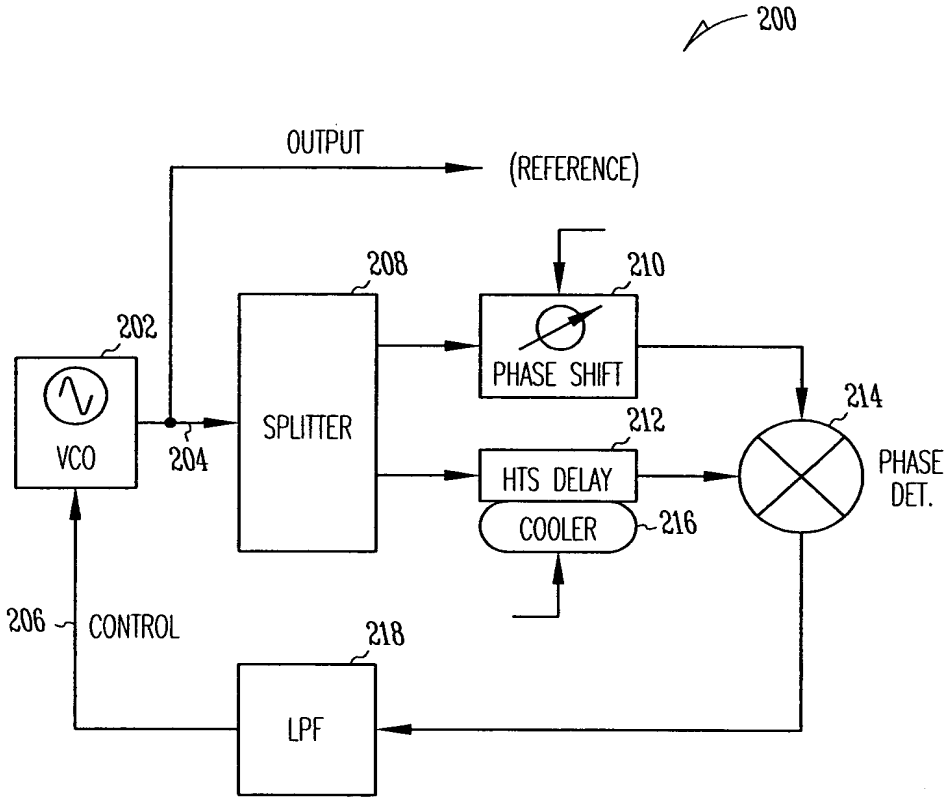
200
OUTPUT
(REFERENCE)
208
210
202
PHASE SHIFT
214
212
SPLITTER
VCO
204
HTS DELAY
PHASE
DET.
COOLER
216
206
CONTROL
218
LPF

Fig. 2

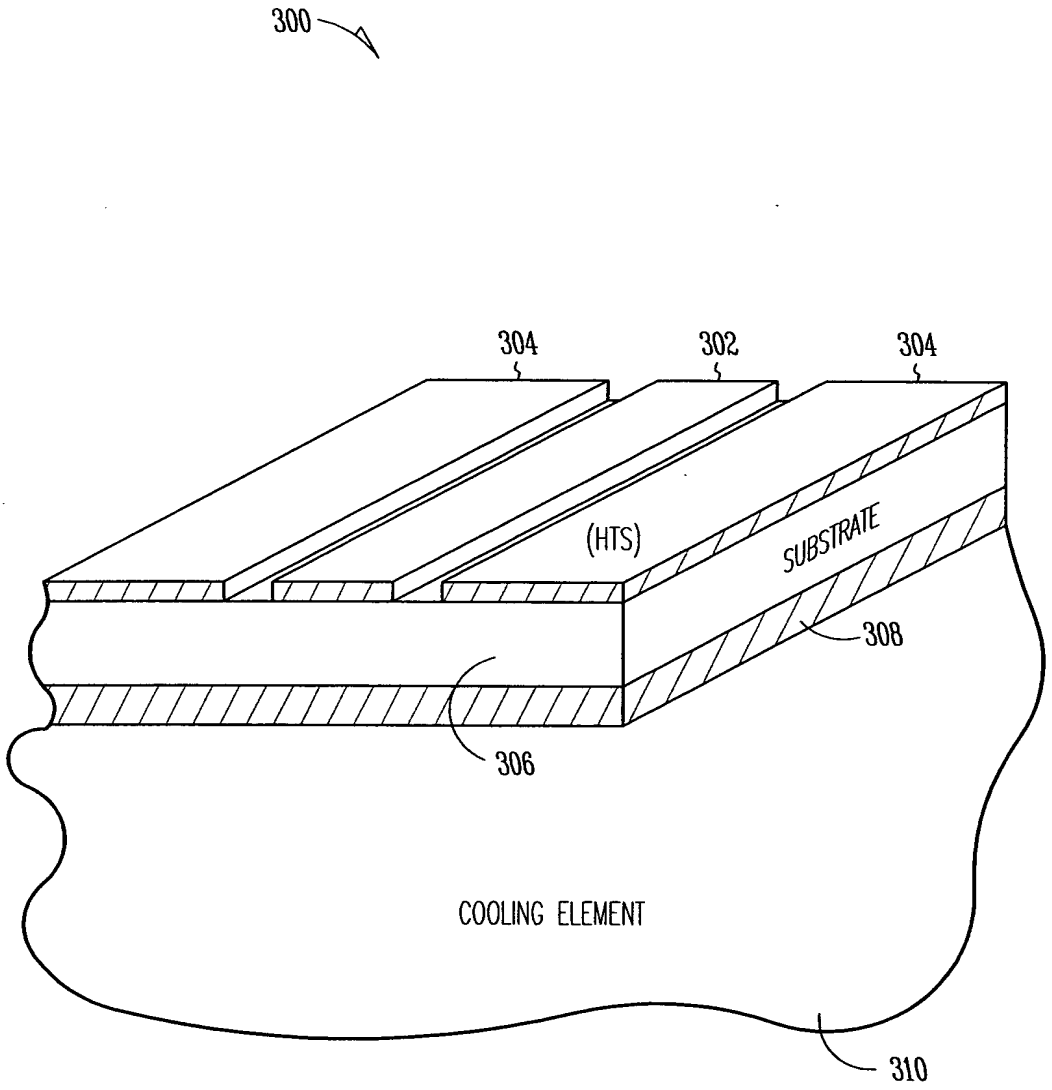

Fig. 3

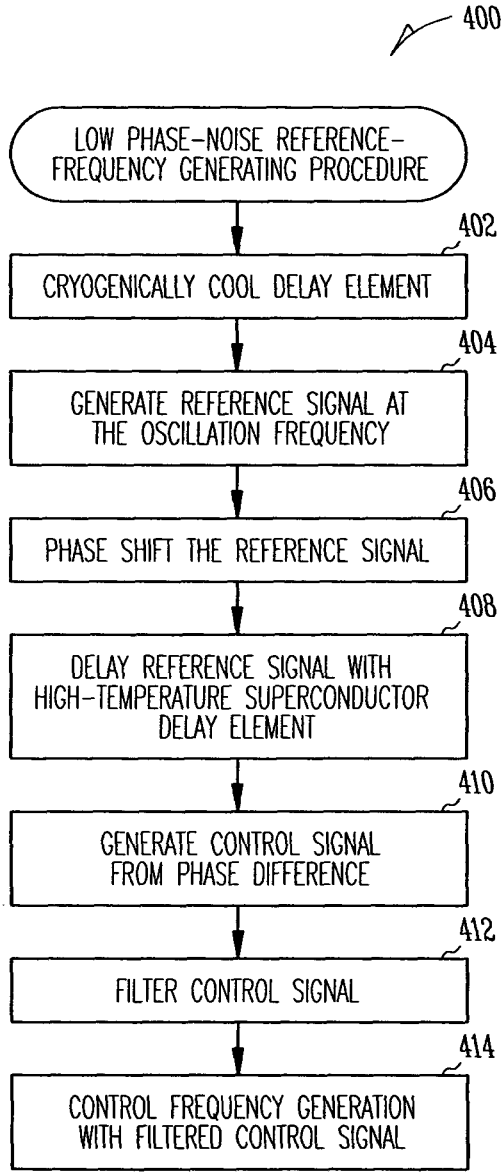
400
LOW PHASE-NOISE REFERENCE-FREQUENCY GENERATING PROCEDURE
402
CRYOGENICALLY COOL DELAY ELEMENT
404
GENERATE REFERENCE SIGNAL AT THE OSCILLATION FREQUENCY
406
PHASE SHIFT THE REFERENCE SIGNAL
408
DELAY REFERENCE SIGNAL WITH HIGH-TEMPERATURE SUPERCONDUCTOR DELAY ELEMENT
410
GENERATE CONTROL SIGNAL FROM PHASE DIFFERENCE
412
FILTER CONTROL SIGNAL
414
CONTROL FREQUENCY GENERATION WITH FILTERED CONTROL SIGNAL

Fig. 4